Warm up

Last orders, gents…

P McCrory

What ever happened to strychnine and brandy as a beneficial health tonic? I only ask because it seems to have gone out of favour of late.

Perhaps the most famous use of this cocktail occurred just over 100 years ago. In the 1904 Olympic Marathon, 31 runners lined up at the start in temperatures above 32 degrees Celsius. Some of the runners were veterans of previous marathons but a number of runners had never competed in distance races. The Greek team apparently could not afford to bring any marathon runners to the Olympics and therefore managed to persuade nine Greek emigrants living locally to enter the race despite the fact that none of them had trained at all. Cuba's entry was not an athlete but a postman. Two of the South African runners were not originally part of the team but rather in town as part of the St Louis World's Fair.[1]

The heat, dust, wild dogs, and treacherous road surface were just some of the obstacles that runners had to deal with. One of the favourites, US runner Thomas Hicks, set a cracking pace but started to flag after 20 kilometers. His personal manager (who was following him in a car) had come prepared with water, sponges, and a variety of stimulants. At the 30 kilometer mark, the manager was ''forced to administer 1/60th grain (approximately 1 mg) of sulphate of strychnine by mouth, beside the white of an egg''. [1] A few kilometers later when Hicks tried to lie down on the side of the road, he received a second dose of strychnine, two eggs, a sip of brandy, and a good sponging all over of warm water. Somewhat revived, Hicks continued but with increasing difficulty.

Interestingly, he was then passed by Fred Lorz who was running extremely well. So he should have been—Lorz had retired from the race earlier and hitched a ride in a passing car. When the car broke down, he re-joined the race and finished first. After a few moments as Olympic champion, he owned up and was disqualified.

Hicks nevertheless battled on assisted by several more helpings of brandy. It is not known how much brandy Hicks consumed during the race however by the finish; his manager had exhausted his supply. Hicks managed to finish the race in first place and then duly collapsed. Hick's manager felt that the win had vindicated his unusual methods and made the point that ''drugs are of much benefit to athletes along the road''. Hicks ultimately recovered from this ordeal.

Other stimulants were popular at the time such as caffeine, alcohol, nitroglycerine, and opium. One of the earliest drugs in sport deaths occurred in 1896 when an English cyclist died of an overdose of ''trimethyl''.[2] More recently amphetamine stimulants came to the fore with the well-publicised deaths of Danish cyclist, Kurt Jensen in the 1960 Rome Olympics and British cyclist, Tommy Simpson in the 1967 Tour de France.

It is only a century or so on since those ground breaking days. Perhaps the clever folks in the drug agencies will get the message sooner or later that drugs in sport are here to stay and appealing to principles of fair play or the Victorian ideal of a level playing field doesn't work.

Br J Sports Med 2005;**39**:879

REFERENCES

1 **Pain S**. Marathon madness. *New Scientist*. 7 August 2004. 46–7.
2 **Brukner P**. Drugs in Sport. SMA publications, Canberra 1995. 2–3.

Warm up

The lean and slippered pantaloon…[1]

P McCrory

It happens to us all eventually—getting older that is. Funny things start to happen by themselves. The number of pill bottles on the bathroom shelf seems to increase as though they are breeding in some weird fashion. Shopping behaviour changes – you find yourself checking out the vitamin and supplement section looking for cures to various real and future ailments. You also start noticing the ads a lot more—growth hormone, cures for Alzheimer's disease, hemorrhoid creams, Viagra—there must be some value in all these pills and potions after all. I mean why would they advertise if they didn't work?

Is there anything we can do that doesn't involve drugs, injections, or cosmetic surgery to assist our graceful decline to the nursing home?

There just may be. Ben Levine's research group in Dallas, Texas has published some fascinating work that demonstrates that healthy ageing is associated with a decline in left ventricular compliance, which in turn leads to diminished diastolic performance of the heart. Somewhat obvious you say but that is not the interesting bit. In Masters athletes (mean age 67 years) who perform prolonged endurance training, left ventricular compliance was preserved and in fact, the pressure-volume curve for Masters athletes was indistinguishable from young (mean age 29 years) sedentary control subjects. It would be expected that this may reduce the risk of heart failure in this group of elderly subjects. Saves the time and trouble of a heart transplant—just run a lot.

Now that the body is sorted, what about preserving the brain from ageing? Well, we have an easy answer there as well—speak another language. For reasons that are not fully explained bilingual speakers have faster reaction times and cued responses. It may be that the ability to speak more than one language assists in developing the capacity to multitask and switch mental ''set'' over that which monoglots possess.[3] It is a lot more interesting than doing crosswords.

Of course you could just have better genes. A recent Swiss study has shown that short term memory skills are significantly influenced by a single gene.[4] I wonder how I can get one?

Br J Sports Med 2005;**39**:879

REFERENCES

1 **Shakespeare W**. As you like it. 2.7. 139–66.
2 **Arbab-Zadeh A**, Dijk E, Prasad A, *et al*. Effect of ageing and physical activity on left ventricular compliance. *Circulation* 2004;**110**:1799–1805.
3 **Bialystok E**, Craik F, Klein R, *et al*. Bilingualism, Aging, and Cognitive Control. *Psychology & Aging* 2004;**19**:290–303.
4 **de Quervain D**, Henke K, Aerni A, *et al*. A functional genetic variation of the 5-HT2a receptor affects human memory. *Nature Neuroscience* 2003;**6**:1141–2.